Appendix D: Natural Resources

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Natural Resources - References

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Appendix D2:
Natural Resources - Correspondence

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

AUG 29 2008

Aubrey McMahon
AKRF
440 Park Avenue South, 7th Floor
New York, New York 10016

Re: Western Rail Yard Project

Dear Ms. McMahon,

This responds to your letter dated August 12, 2008 regarding the proposed redevelopment of the western section of the MTA-Long Island Rail Yard (LIRR) John D. Caemmerer West Side Yard in Manhattan ("Western Rail Yard").

Several species of listed sea turtles are known to be seasonally present in New York waters and a population of the federally endangered shortnose sturgeon (*Acipenser brevirostrum*) is known to exist in the Hudson River. It appears from your letter that the project boundary does not encompass any waterbodies. If this is the case, no further coordination with the Protected Resources Division of NOAA's National Marine Fisheries Service (NMFS) is required. If you have any questions regarding these comments, please contact Julie Crocker at (978)281-9328 x6530.

Sincerely,

for Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

Cc: Rusanowsky, F/NER4

File Code: Sec 7 – 2008 No Species Present

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, Albany, New York 12233-4757
Phone: (518) 402-8935 • **FAX:** (518) 402-8925
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

August 28, 2008

Aubrey McMahon
A K R F
440 Park Ave. South, 7th floor
New York, NY 10016

Dear Mr. McMahon:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to an Environmental Assessment for the proposed Re-Development Mixed Use - Long Island Railroad, 3 SITES - Western Rail Yards, sites as indicated on the map you provided, located in Manhattan.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and should not be released to the public without permission from the New York Natural Heritage Program.
PLEASE NOTE: The enclosed computer printout applies only to Figure 1,
West 33rd Street and Eleventh Avenue.
NO DATA was found at Figure 2 SITE, nor Figure 3 SITE.

PLEASE NOTE: Figure 1 SITE - West 33rd St, and 11th Ave, is near a Significant Coastal Fish and Wildlife Habitat.

PLEASE NOTE: Figure 1 SITE - West 33rd St, and 11th Ave, is near the New York Hudson River State Park.

This project location is adjacent to a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Jeff Zappieri or Vance Barr - (518) 474-6000
NYS Department of State
Division of Coastal Resources and Waterfront Revitalization
41 State Street, Albany, NY 12231

The presence of rare species may result in your project requiring additional permits, permit conditions, or review. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should NOT be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Tara Seoane

Tara Seoane
Information Services
NY Natural Heritage Program

cc: Reg. 2, Wildlife Mgr.
Reg. 2, Fisheries Mgr.
Tom Lyons, NYS OPRHP, Empire State Pl, Bldg. 1, Albany, 12238, 17th floor

West 33rd Street and Eleventh Ave

Natural Heritage Report on Rare Species and Ecological Communities

NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor, Albany, NY
12233-4757
(518) 402-8935

~This report contains **SENSITIVE** information that should not be released to the public without permission from the NY Natural Heritage Program.
~Refer to the User's Guide for explanations of codes, ranks and fields.
~Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

Natural Heritage Report on Rare Species and Ecological Communities

FISH

Acipenser brevirostrum

Shortnose Sturgeon

NY Legal Status:	Endangered	**NYS Rank:**	S1 - Critically imperiled	Office Use 1091
Federal Listing:	Endangered	**Global Rank:**	G3 - Vulnerable	HRF BOF
Last Report:	**	**EO Rank:**	**	USFWS

County: Columbia, Putnam, Rensselaer, Rockland, Orange, Dutchess, Greene, Westchester, Albany, Ulster, Bronx
Town: multiple
Location: Hudson River
Directions: Shortnose sturgeon are found in the long tidal portion of Hudson River.
General Quality and Habitat: For information, including management considerations, please contact the NYS DEC Hudson River Fisheries Unit at 845-256-3071.

1 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at http://www.natureserve.org/explorer, from NYSDEC at http://www.dec.ny.gov/animals/7494.html (for animals), and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org. For descriptions of all community types, go to http://www.dec.ny.gov/animals/29384.html and click on DRAFT--Ecological Communities of New York State.

DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

January 2004

REGION	COUNTIES	REGIONAL PERMIT ADMINISTRATORS
1	Nassau & Suffolk	John Pavacic NYS-DEC BLDG. 40 SUNY at Stony Brook Stony Brook, NY 11790-2356 Telephone: (631) 444-0365
2	New York City (Boroughs of Manhattan, Brooklyn, Bronx, Queens, & Staten Island	John Cryan NYS-DEC One Hunters Point Plaza 47-40 21st Street Long Island City, NY 11101-5407 Telephone: (718) 482-4997
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster & Westchester	Margaret Duke NYS-DEC 21 South Putt Corners Road New Paltz, NY 12561-1696 Telephone: (845) 256-3054
4	Albany, Columbia, Greene, Montgomery, Rensselaer & Schenectady	William Clarke NYS-DEC 1150 North Wescott Road Schenectady, NY 12306-2014 Telephone: (518) 357-2069
4 (sub-office)	Delaware, Otsego & Schoharie	Kent Sanders NYS-DEC Route 10 HCR#1, Box 3A Stamford, NY 12167-9503 Telephone: (607) 652-7741
5	Clinton, Essex, Franklin & Hamilton	Thomas Hall NYS-DEC Route 86, PO Box 296 Ray Brook, NY 12977-0296 Telephone: (518) 897-1234
5 (sub-office)	Fulton, Saratoga, Warren & Washington	Thomas Hall NYS-DEC County Route 40 PO Box 220 Warrensburg, NY 12885-0220 Telephone: (518) 623-1281
6	Jefferson, Lewis & St. Lawrence	Brian Fenlon NYS-DEC State Office Building 317 Washington Street Watertown, NY 13601-3787 Telephone: (315) 785-2245
6 (sub-office)	Herkimer & Oneida	J. Joseph Homburger* NYS-DEC State Office Building 207 Genesee Street Utica, NY 13501-2885 Telephone: (315) 793-2555

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 625 Broadway, 5th Floor, Albany, NY 12233-4757 phone: (518) 402-8935

NATURAL HERITAGE PROGRAM: The NY Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYS DEC) and The Nature Conservancy. Our mission is to enable and enhance conservation of rare animals, rare plants, and significant communities. We accomplish this mission by combining thorough field inventories, scientific analyses, expert interpretation, and the most comprehensive database on New York's distinctive biodiversity to deliver the highest quality information for natural resource planning, protection, and management.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should **not** be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

EO RANK: A letter code for the quality of the occurrence of the rare species or significant natural community, based on population size or area, condition, and landscape context.

A-E = Extant: A=Excellent, B=Good, C=Fair, D=Poor, E=Extant but with insufficient data to assign a rank of A-D.
F = Failed to find. Did not locate species during a limited search, but habitat is still there and further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
U = Extant/Historical status uncertain.
Blank = Not assigned.

LAST REPORT: The date that the rare species or significant natural community was last observed at this location, as documented in the Natural Heritage databases. The format is most often YYYY-MM-DD.

NY LEGAL STATUS – Animals:

Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E - Endangered Species: any species which meet one of the following criteria:
- Any native species in imminent danger of extirpation or extinction in New York.
- Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T - Threatened Species: any species which meet one of the following criteria:
- Any native species likely to become an endangered species within the foreseeable future in NY.
- Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC - Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P - Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U - Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

G - Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NY LEGAL STATUS – Plants:

The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

E - Endangered Species: listed species are those with:
- 5 or fewer extant sites, or
- fewer than 1,000 individuals, or
- restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
- species listed as endangered by U.S. Dept. of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T - Threatened: listed species are those with:
- 6 to fewer than 20 extant sites, or
- 1,000 to fewer than 3,000 individuals, or
- restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
- listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

DAVID A. PATERSON
GOVERNOR

LORRAINE A. CORTÉS-VÁZQUEZ
SECRETARY OF STATE

September 8, 2008

Aubrey McMahon
Environmental Analyst
AKRF, Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

RE: Significant Coastal Fish and Wildlife Habitats in the Lower Hudson River

Dear Ms. McMahon,

Thank you for requesting information regarding the State designated Significant Coastal Fish and Wildlife Habitats. Attached, please find the habitat narrative for the Lower Hudson Reach, designated September 15, 1992, which is accompanied by 6 area maps. I recommend that special attention is given to the Impact Assessment section, found on page 3. This section, while not comprehensive, provides examples of generic activities and impacts which could destroy or significantly impair the habitat.

The proposed site is located in an area covered by the New York City Waterfront Revitalization Program. If the proposed activity will require authorization or other forms of approval from federal agencies, it will be necessary for you to provide us with a completed and signed Federal Consistency Assessment Form (the New York City Coastal Assessment Form may be used) together with your federal application and all supporting documents.

If you should have further questions, please feel free to contact me at 518.486.7641 or Stephanie_Wojtowicz@dos.state.ny.us.

Sincerely,

Stephanie Wojtowicz
Coastal Resource Specialist I

Attachments: Lower Hudson Reach SCFWH Narrative

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Lower Hudson Reach**
Designated: **September 15, 1992**
County(ies): **New York; Bronx; Westchester**
Town(s): **New York City (Manhattan, Bronx); Yonkers**
7½' Quadrangle(s): **Jersey City, NY-NJ; Central Park, NY-NJ; Yonkers, NY**

Score	Criterion
72	Ecosystem Rarity (ER) One of only a few large tidal river mouth systems in the northeastern United States, providing a unique range of salinity and other estuarine features. Geometric mean: $(64 \times 81)^{1/2} = 72$.
0	Species Vulnerability (SV) No endangered, threatened or special concern species are known to reside in the area.
11	Human Use (HU) Recreational (and local subsistence) fishing of importance for a major region of New York State, particularly for metropolitan residents. Educational uses throughout the area (such as the River Project at pier 26 and Inwood Hill Park programs on Spuyten Duyvil) of county level importance. Additive division: 9 + 4/2
25	Population Level (PL) Concentrations of wintering striped bass and winter flounder are of regional significance (hot continental region of the U.S.).
1.2	Replaceability (R) Irreplaceable.

SIGNIFICANCE VALUE = [(ER + SV + HU + PL) X R] = **130**

DESIGNATED HABITAT: LOWER HUDSON REACH

HABITAT DESCRIPTION:

The Lower Hudson Reach is the portion of the Hudson River starting from Battery Park at the tip of Manhattan and extending north to Yonkers in the vicinity of Glenwood. The eastern habitat boundary is the developed shoreline along Manhattan, Bronx, and Yonkers. The northern Manhattan portion of the eastern habitat boundary extends into the Spuyten Duyvil Creek to include some of the only remaining intertidal marsh and flats in Manhattan. The western habitat boundary runs along the NY-NJ state line in the middle of the River; the western boundary is political and does not address similar habitat values which exist in New Jersey waters. The Lower Hudson Reach includes the waters off the boroughs of Manhattan and the Bronx in New York City (New York and Bronx Counties) and the City of Yonkers (Westchester County) (7.5' Quadrangles: Jersey City, NY-NJ; Central Park, NY-NJ; Yonkers, NY). This area runs for 19 River miles and includes deepwater, shallows, piers and interpier basins.

Most of the shoreline along the habitat has been extensively disturbed through filling, bulkheading, and development including residential, commercial, industrial, and public uses. Natural shoreline and wetland vegetation is limited throughout the area with a notable exception on the Spuyten Duyvil at Inwood Hill Park. The shoreline and associated uplands are under a patchwork of public and private ownership, with the City of New York owning significant portions of Manhattan's west side. Underwater lands are also under both private and public ownership, with NYC holding grants to most underwater lands to the pierhead limit while lands beyond this limit are generally under State ownership.

Water depths in this stretch of the River range from 6 to 70 feet and tides range from 4 to 5 feet. This area of the River continues to receive pollutants from stormwater runoff, sewage effluents, and industrial or commercial point sources. The entire area is characterized as a brackish environment with salinity ranging from 3.8 parts per thousand (ppt) to 18.7 ppt. Salinity depends on the location of the saltfront which varies with the seasons. The location of the saltfront is influenced by a number of physical forces, the most important of which is the volume of freshwater flowing from the Hudson River. From late fall through spring, the volume of freshwater flowing downriver is large and the salt front is pushed south in the vicinity of New York City. During the summer months, the volume of freshwater decreases and the saltfront moves many miles upriver. The specific location of the saltfront varies considerably from year to year based on its dependance on precipitation occurring throughout the 13,000 square-mile Hudson River watershed. Water velocity in the area ranges from approximately 0.2 to 0.7 feet/sec and average dissolved oxygen content varies with seasons ranging from 3.5 parts per million (ppm) in August to 13.0 ppm in February.

FISH AND WILDLIFE VALUES:

Despite extensive disturbance from filling and development, and impaired water quality, this habitat sustains a diverse community of benthic, planktonic, and pelagic species. The River provides important wintering habitat for large numbers of young-of-the-year, yearling, and older striped bass between mid-November and mid-April.

The entire lower portion of the Hudson River estuary may provide an important habitat in the life history of striped bass by providing a sheltered environment with abundant food sources that are associated with the winter position of the River's salt front. Striped bass spawn above the River's salt front between West Point and Kingston from April to mid-June (see significant coastal fish and wildlife habitat narrative: Hudson River Miles 44 to 56). Eggs are semibouyant and are found in greatest concentration from mid-May to early June. Larvae generally transform to juvenile fish between late June and late July, concentrating in areas of abundant zooplankton near the salt front (see significant coastal fish and wildlife habitat narrative: Haverstraw Bay). Juveniles remain near shore until November and December when they move to deeper water. Although juveniles may be widely distributed throughout the Hudson River estuary and nearby coastal waters (particularly for strong year classes when juveniles are abundant), a significant concentration of juveniles remain in the proximity of the salt front as it recedes downriver to its winter position in the Lower Hudson Reach. Yearling striped bass (those spawned in the previous year) generally remain within 25 to 50 miles of the mouth of the Hudson River with an unknown proportion staying in the estuary and the remainder moving out into higher salinity coastal waters. Those yearlings remaining in the River generally follow the salt front through their second year and overwinter in the Lower Hudson Reach. These fish may take advantage of undetermined physiological or ecological benefits associated with the transition area between estuarine brackish and higher salinity coastal environments. Large numbers of two year old fish move out of the estuary into coastal waters, returning to overwinter in or near the lower Hudson River. After age two, many of these fish may continue to use the lower Hudson River as an overwintering area, but the majority of their lives as adult fish is spent in coastal waters, only returning to the Hudson River to spawn beyond age 4.

In addition to striped bass, several other finfish species use the area. Significant numbers of yearling winter flounder also occupy this stretch of River in winter months (generally from December to April). Surveys have also found summer flounder, white perch, Atlantic tomcod, Atlantic silversides, bay anchovy, hogchokers and American eel in significant numbers. This area of the River may also be important for bluefish and weakfish young of year and both Atlantic sturgeon and shortnose (adult only) sturgeon (E). American shad and blue crabs also contribute to the fishery. Animals of lower trophic levels are also present in substantial numbers providing an important food source. These include planktonic forms such as copepods, rotifers, mysid shrimp; and, benthic forms such as nematodes, oligochaetes, polychaetes, and amphipods.

The Lower Hudson Reach also provides habitat for several species of wintering waterfowl. Mid-winter aerial surveys between 1986 and 1990 show an average of 1,619 canvasback, 281 scaup, and lesser numbers of mergansers, mallards, and Canada geese.

IMPACT ASSESSMENT:

Although not comprehensive, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test (see page 2 of this report) to a proposed activity.

Any activity that would further degrade water quality in the Lower Hudson Reach would adversely affect habitat values for fish and wildlife using the area. Many species of fish and wildlife would be adversely affected by water pollution through chemical or toxic contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, and waste disposal.

Transient habitat disturbances, such as those resulting from dredging or in-River construction activities, could result in significant impairment of the habitat value for striped bass, particularly as an overwintering area between mid- November and mid-April. Dredging can only be conducted during the identified overwintering period under the following circumstances. Documentation must be provided which demonstrates that the dredging can only be scheduled during the overwintering period (passenger shipping is an example of a seasonal use which may require off-season maintenance activities over the winter months). This documentation should include an analysis of alternatives that could allow dredging to be occur during less sensitive periods (such as the use of alternative facilities, or staggering use and dredging schedules). In cases where alternatives to dredging during the overwintering period are not available, both spatial and temporal methods aimed at reducing potential impacts shall be used. Spatial methods may include use of dredging equipment that minimizes turbidity and sediment over-spill, use of turbidity curtains, and limiting the dredging project size. Temporal methods include compressed job completion schedules and avoidance of high current velocity associated with spring tides and flood conditions. The scale of potential transitory impacts throughout the designated habitat that could result from dredging projects that meet the above conditions should be further minimized by evaluating cumulative impacts that may result from concurrent dredging activities in the designated habitat. An analysis of cumulative impacts should ensure that suitable adjacent habitat would be available for fish and wildlife species while a portion of the habitat is subject to transitory disturbance. Impaired water quality or transient disturbances may result in barriers to migration that would have significant impact on populations of anadromous fishes that migrate to the Hudson River for spawning, generally throughout the year depending on particular species.

Large scale non-consumptive use of water may disrupt salinity gradients both by removing significant quantities of freshwater from the Hudson or its watershed and, following use of the water, discharging it in a higher salinity environment. Maintaining natural salinity gradients and fluctuations is probably of major importance for preservation of the habitat function. Adverse impacts on the River's resources from large scale non-consumptive uses would be greatest during summer drought conditions. Installation and operation of water intakes could also have significant impacts on fish populations in the area through impingement of juveniles and adults, or entrainment of egg and larval stages. Efforts to improve water quality in the Lower Hudson Reach should continue and include upgrading and control of sewage discharges, other point sources, and nonpoint source pollution.

Major structural alteration to the habitat through dredging, filling, or platforming on dense piles could cause significant impairment of the habitat. Recent research suggests that little difference exists in habitat value or use between underpier areas and interpier basins. No information exists, however, that adequately demonstrates the relationship among the River's physical environment, existing shoreline and inwater structures, seasonal salinity regimes, and the resultant habitat values. Absent an adequate understanding of the function of this habitat, significant impairment of the habitat could result if major structural alterations occur. Current habitat values may be best protected by maintaining the current types and amount of structural diversity in the area. This is not to be interpreted as a prohibition on any activity in the area such as pier renovation, reconfiguration, or removal, but should be used as a guideline in coordinating otherwise unrelated activities through comprehensive planning. The final West Side Waterfront Panel Plan dated November 1, 1990, provides an example of comprehensive planning which appropriately recognizes the habitat values associated with the Lower Hudson Reach habitat. Site specific actions should not be undertaken that have not demonstrated an awareness and

analysis of the context of that action within the habitat and its structural elements. With respect to cumulative impacts, the history of extensive filling and development of this shoreline from colonial to present times, coupled with interests in platforming proposals, suggests that the entire area continues to be vulnerable to development pressures that could lead to direct loss of significant amounts of habitat.

Similar habitat values appear to exist in the corresponding area of the Hudson River that is within New Jersey. Proposed developments which are likely to have impacts similar to those identified above which would result in destruction or significant impairment of the habitat, would also have a direct effect on New York's coastal resources.

KNOWLEDGEABLE CONTACTS:

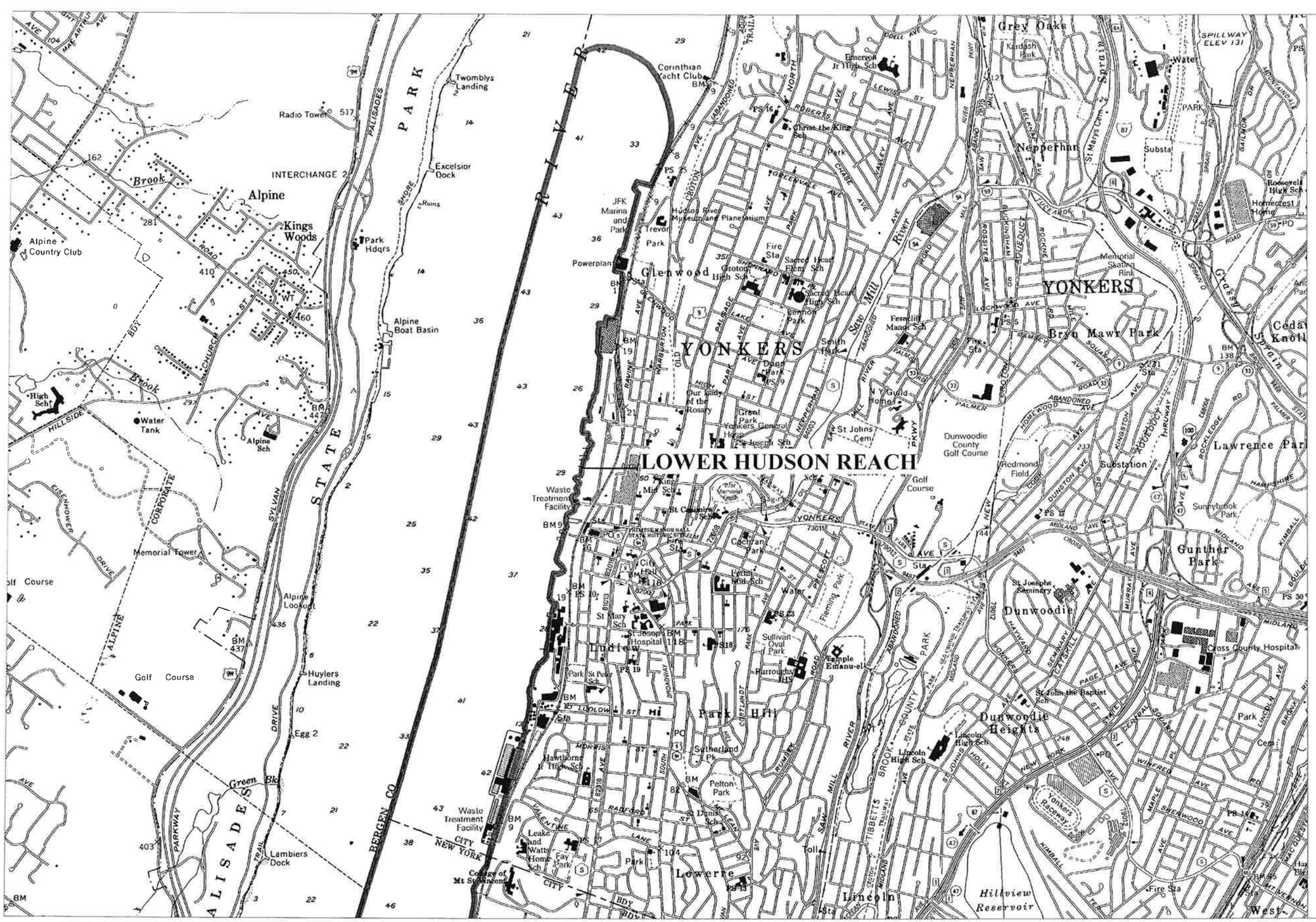
Greg Capobianco or Tom Hart
NYS Department of State
Division of Coastal Resources & Waterfront Revitalization
162 Washington Avenue
Albany, NY 12231 Phone: (518) 474-6000

Joe Pane
NYSDEC-Region 2
Hunters Point Plaza
Long Island City, NY 11101 Phone: (718) 482-4921

Mike Ludwig
National Marine Fisheries Service
Milford Laboratory
2121 Rogers Avenue
Milford, CT 06460 Phone: (203) 783-4200

Byron Young
NYSDEC-Region 1
SUNY Campus Building 40
Stony Brook, NY 11794 Phone: (516) 751-7900

NYSDEC Information Services
700 Troy-Schenectady Road
Latham, NY 12110 Phone: (518) 783-3932



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LOWER HUDSON REACH

N

0 2000 feet

Significant Coastal Fish and Wildlife Habitats

Lower Hudson Reach (In Part)

part 2 of 6

New York State Department of State

Division of Coastal Resources

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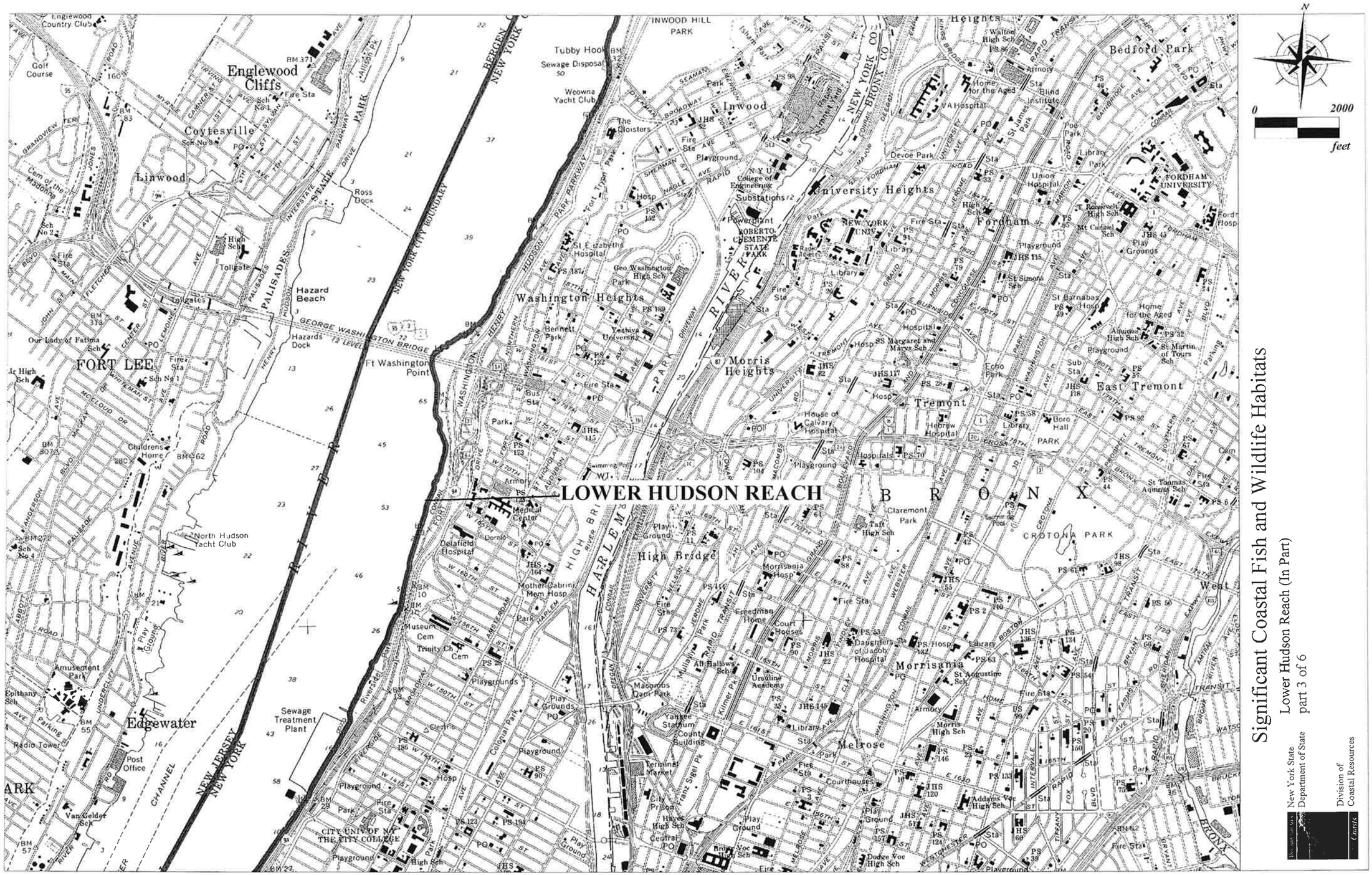
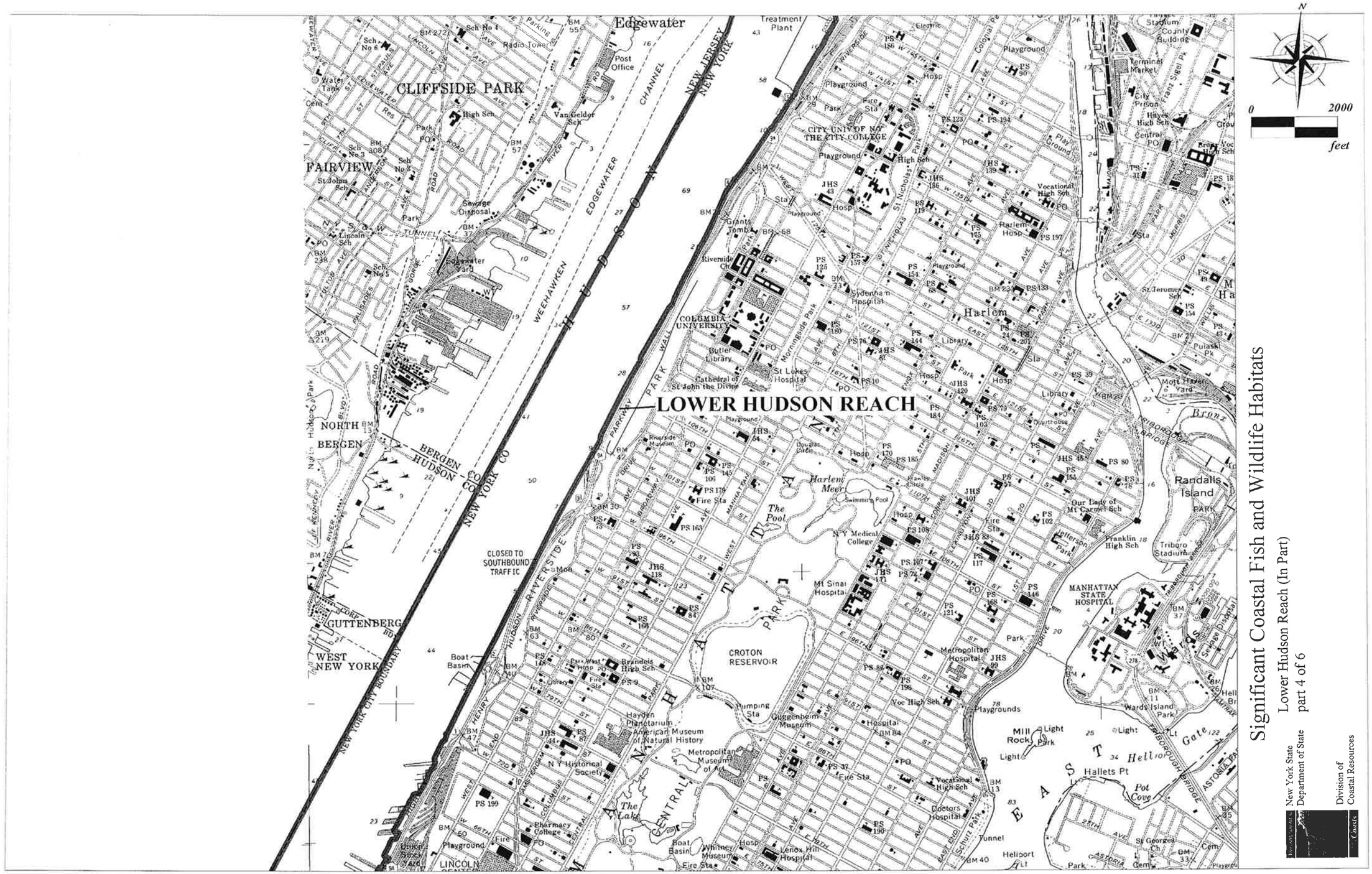

LOWER HUDSON REACH
NEW YORK CITY BOUNDARY
NEW JERSEY
NEW YORK
Englewood Cliffs
Coytesville
Linwood
FORT LEE
Hazard Beach
Ft Washington Point
Washington Heights
Inwood
INWOOD HILL PARK
Tubby Hook
Weowna Yacht Club
Morris Heights
University Heights
Fordham
Bedford Park
East Tremont
Tremont
High Bridge
Morrisania
Melrose
Edgewater
Sewage Treatment Plant
North Hudson Yacht Club
Amusement Park
Post Office
Van Gelder Sch
Our Lady of Fatima Sch
Golf Course
Englewood Country Club
Cem of the Madonna
Ross Dock
Tollgate
Hazards Dock
Bennett Park
Geo Washington High Sch
St Elizabeths Hospital
Yeshiva University
Roberto-Clemente State Park
NYU College of Engineering
Substations
Powerplant
NEW YORK UNIV
FORDHAM UNIVERSITY
Devoe Park
Library Park
Echo Park
Boro Hall PARK
CROTONA PARK
Claremont Park
Macombs Dam Park
Yankee Stadium
County Building
Terminal Market
City Prison
Franz Sigel Pk
Courthouses
Bronx Park
Delafield Hospital
Mother Cabrini Mem Hosp
Museum
Cem
Trinity Ch Cem
Colonial Park
Playgrounds
Playground
CITY UNIV OF NY THE CITY COLLEGE
Riverside
Broadway
Amsterdam
Edgecombe
Riverside Dr
Fort Tryon Park
Park Terrace
Seaman Park
Isham Park
Inwood Hill Park
Sherman Creek
Harlem River
Harlem River Yard
Harlem River Driveway
Hudson River
Henry Hudson Parkway
Palisades Interstate Parkway
George Washington Bridge
12 Level
Major Deegan Expressway
Cross Bronx Expressway
Bronx River
Bronx Kill
Channel
Underclift
Palisade Avenue
Boston Road
Webster Avenue
Jerome Avenue
Grand Concourse
Park Avenue
Fordham Road
Tremont Avenue
Southern Boulevard
Intervale Avenue
Westchester Avenue
Rapid Transit
Subway
Yard
Bus Sta
Fire Sta
Hospitals
Armory
Library
Courthouses
Substations
Powerplant
Playground
Park
Cem
Sch
PS
JHS
Hosp
PO
Sta
Bridge
Tunnel
Ferry
Pier
Wharf
Marina
Yacht Club
Sewage Disposal
Radio Tower
Parking
Golf Course
Country Club
Home for the Aged
Blind Institute
Union Hospital
Morrisania Hospital
Lincoln Hospital
Fordham Hospital
Bronx Lebanon Hospital
Montefiore Hospital
Jacobi Hospital
Metropolitan Hospital
Harlem Hospital
Mt Sinai Hospital
Mt Carmel Sch
St Barnabas Hospital
St Martin of Tours Sch
St Thomas Aquinas Sch
St Augustine Sch
Morris High Sch
Taft High Sch
Walton High Sch
Aquinas High Sch
Roosevelt High Sch
Addams Voc High Sch
Dodge Voc High Sch
Hebrew Hospital
House of Calvary Hospital
St Joachim and Anne Sch
St Simons Sch
Yeshiva
Trinity Ch
Creedmoor Home
Court Houses
Daughters of Jacob Hospital
Ursuline Academy
Macombs Dam Park
Franz Sigel Pk
Colonial Park
Bronx Park
Crotona Park
Boro Hall Park
Echo Park
Devoe Park
Library Park
Playground
Play Ground
Play Grounds
Fire Sta
Bus Sta
Sub Sta
Hospitals
Armory
Courthouses
Substations
Powerplant
Yard
Subway
Rapid Transit



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Significant Coastal Fish and Wildlife Habitats

Lower Hudson Reach (In Part)

part 5 of 6

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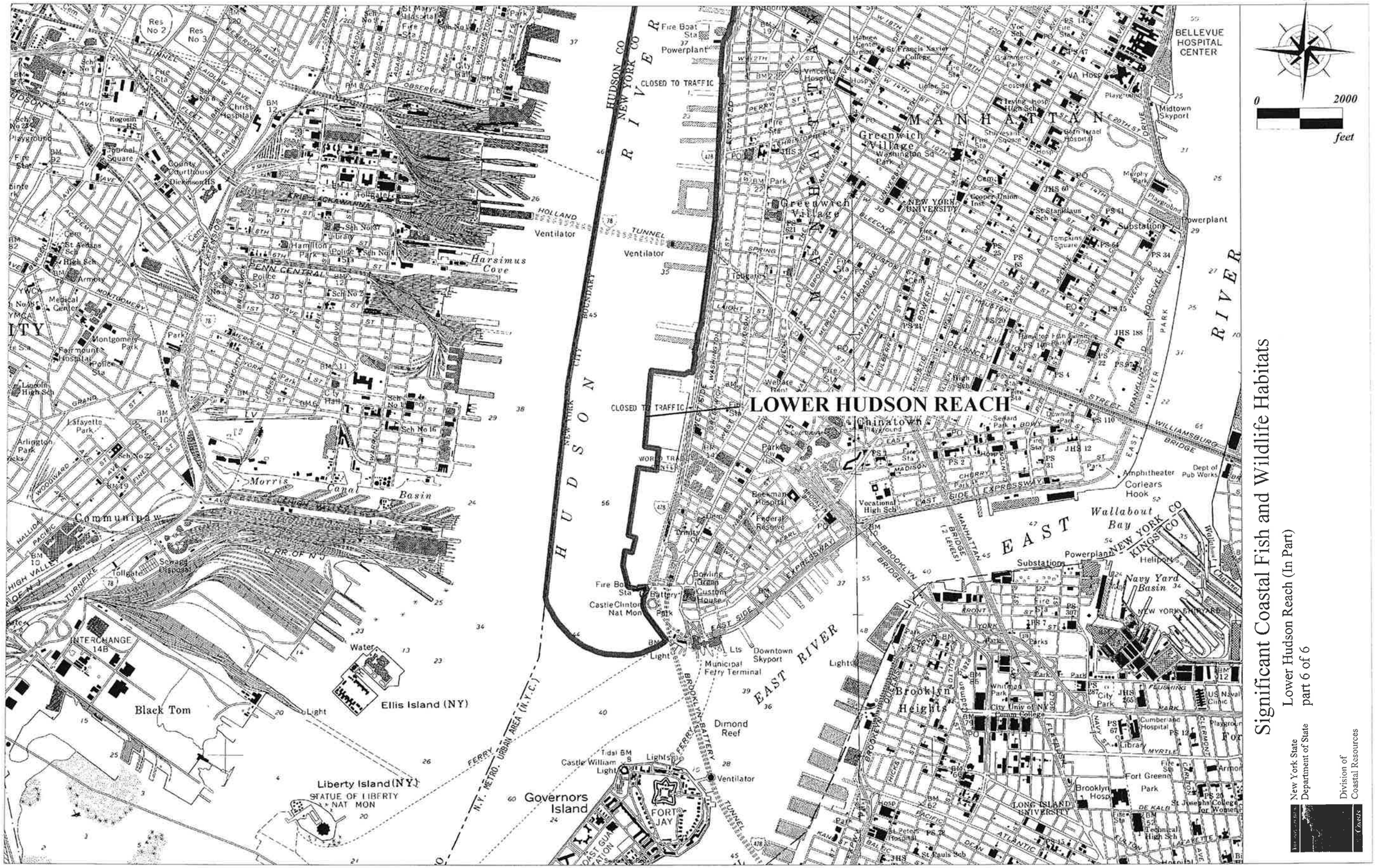

Significant Coastal Fish and Wildlife Habitats

Lower Hudson Reach (In Part)

part 6 of 6

New York State Department of State

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